### PATENT COOPERATION TREATY

# **PCT**

# Translation INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FS04-412PCT	FOR FURTHER ACTION	See Form PCT/IPEA/416						
International application No.	International filing date (day/month/year	Priority date (day/month/year)						
PCT/JP2004/004590	31.03.2004	10.04.2003						
International Patent Classification (IPC) or national classification and IPC								
Applicant								
JAPAN SCIENCE AND TECHNOLOGY AGENCY								
<ol> <li>This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> </ol>								
2. This REPORT consists of a total of _	3 sheets, in	cluding this cover sheet.						
3. This report is also accompanied by Al	NNEXES, comprising:							
a. (sent to the applicant and	to the International Bureau) a total of	sheets, as follows:						
sheets of the descrip sheets containing red Instructions).	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative							
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental							
	, containing a sequence listing and/or tables							
related thereto, in computer Section 802 of the Administ		Supplemental Box Relating to Sequence Listing (see						
<b>™</b> .	This report contains indications relating to the following items:  Box No. I Basis of the report							
Box No. II Priority								
Box No. III Non-establi	shment of opinion with regard to novelty,	inventive step and industrial applicability						
Box No. IV Lack of unit	ty of invention							
Box No. VI Certain doc	uments cited							
Box No. VII Certain defe	Box No. VII Certain defects in the international application							
Box No. VIII Certain obs	Box No. VIII Certain observations on the international application							
Date of submission of the demand  Date of completion of this report								
		·						
Name and mailing address of the IPEA/JP	Authorized office	r						
Facsimile No.	Telephone No.							

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/004590

Box	No. I	Basis of the report				
1.		regard to the language, this report is based on the internation ated under this item.	nal application in the language in	which it was filed, unless otherwise		
		This report is based on translations from the original language which is the language of a translation furnished for the purport	ge into the following languageoses of:	· · · · · · · · · · · · · · · · · · ·		
		international search (Rule 12.3 and 23.1(b))				
		publication of the international application (Rule 12.4)				
	With	international preliminary examination (Rule 55.2 and/	•	hanna aibink kanna kanna Camainka dan da		
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):					
		the international application as originally filed/furnished				
	$\boxtimes$	the description:				
		pages _1,2,4,4/1,5,6,7		as originally filed/furnished		
		pages* 3	received by this Authority on	13.10.2004		
		pages*	received by this Authority on			
	$\boxtimes$	the claims:				
		nos. 2-5		as originally filed/furnished		
		nos.*	as amended (togethe	r with any statement) under Article 19		
		nos.* 1	received by this Authority on	13.10.2004		
		nos.*	received by this Authority on			
	$\boxtimes$	the drawings:				
		sheets 1-4		as originally filed/furnished		
		sheets*	received by this Authority on			
		sheets*	received by this Authority on			
		a sequence listing and/or any related table(s) - see Supplem	ental Box Relating to Sequence L	isting.		
3.		The amendments have resulted in the cancellation of:				
		the description, pages				
		the claims, nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to sequence listing (specify):				
4.	$\boxtimes$	This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as fi	lments annexed to this report and led, as indicated in the Supplemen	listed below had not been made, since ntal Box (Rule 70.2(c)).		
		the description, pages 4,4/1,5,5/1				
	the claims, nos. 4					
	the drawings, sheets/figs 5					
		the sequence listing (specify):				
	any table(s) related to sequence listing (specify):					
	If ite	em 4 applies, some or all of those sheets may be marked "sup	erseded."			

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/004590

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement			
	Novelty (N)	Claims	1-5	YES
		Claims		NO
	Inventive step (IS)	Claims		YES
		Claims	1-5	NO
	Industrial applicability (IA)	Claims	1-5	YES
		Claims		NO

#### 2. Citations and explanations (Rule 70.7)

- Document 1: JP 2000-249768 A (Hamamatsu Photonics Kabushiki Kaisha), 14 September 2000, paragraph [0046] and [0047]; fig. 1 to 14
- Document 2: Hamamatsu Photonics K.K., Microchannel Plate
  Photomultiplier Tube (MCP-PMTs) R3809U-50
  Series, 2002

## Claims 1 to 5

Document 1 sets forth a gamma ray detector wherein a CsBr crystal having an atomic ratio of Cs to Br of 1:1 as a scintillator, and a photomultiplier tube is used to receive light from the scintillator.

In addition, document 2 sets forth a photomultiplier tube built into a MCP.

It would be obvious to a person skilled in the art to employ the photomultiplier tube set forth in document 2 as the photomultiplier tube set forth in document 1.

Therefore the invention set forth in claims 1 to 5 does not involve an inventive step in the light of documents 1 and 2.